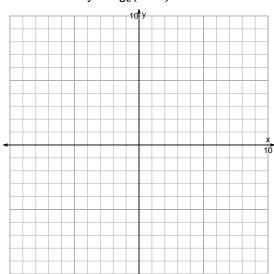
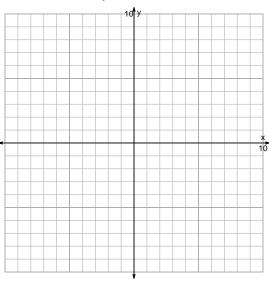
s18quiz: EXP LOG (Example v6)

1. Graph $y = \log_2(x+6) + 5$ and $y = 2^{x+3} + 4$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = \log_2(x+6) + 5$$



$$y = 2^{x+3} + 4$$



2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$11 = \left(\frac{4}{5}\right) \cdot 10^{-3t/7}$$

3. An exponential function $f(x) = 21.5 \cdot e^{-0.765x}$ is graphed below on a semi-log plot.



- a. Using the plot above, evaluate f(-1.1).
- b. Express $f^{-1}(x)$, the inverse of f.
- c. Using the plot above, evaluate $f^{-1}(4)$.